

**MSP
#5****IRS Policy Implementation Through Systems Programming Lacks
Transparency and Precludes Adequate Review****RESPONSIBLE OFFICIALS**

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DEFINITION OF PROBLEM

The IRS needs automation to administer tax laws and tax-based social programs efficiently. Automation can enhance speed, accuracy, and comprehension while promoting consistency and fairness. To be effective, tax policies and procedures applied using automated systems and software applications require transparency, and employee guidance embedded in systems must be reviewed and continually analyzed for proper application. However, not all IRS systems have a continuous feedback cycle to assess and update embedded policies. In other words, unlike guidance to IRS employees published in the Internal Revenue Manual (IRM), policy guidance embedded in systems is neither reviewed internally nor published externally. As a result, IRS systems may be programmed with incorrect, incomplete, or outdated guidance, and employees relying on this information may make decisions that harm taxpayers. Further, the IRS may not be fulfilling its duty to update or publish instructions or procedures affecting taxpayers under the Freedom of Information Act (FOIA) and the Electronic FOIA Amendments of 1996 (E-FOIA).¹

ANALYSIS OF PROBLEM**Background**

The IRS established the Servicewide Policy, Directives and Electronic Research (SPDER) office to manage the process of administering and communicating consistent internal management directives and policies that employees can rely upon and use to treat taxpayers fairly.² Prior to the existence of SPDER, the Internal Management Document (IMD)³ review process lacked oversight. Through the SPDER office, the IRS now establishes the policy and writes procedures for reviewing and approving all written policy, procedures, and guidance before these materials are issued and published.

¹ 5 U.S.C.A. § 552. The Electronic Freedom of Information Act Amendments (E-FOIA), Pub. L. No. 104-231, 110 Stat. 3048 (1996).

² IRS Memorandum from Deputy Commissioner Operations, to All Heads of Offices re: Servicewide Policy, Directives, and Electronic Research (SPDER) (Dec. 22, 1999).

³ IRS Internal Management Documents (IMDs) include the IRM, delegation orders, and policy statements. IRM 1.11.5.1 (Sept. 1, 2009).

Proposed IRS written policies and guidance go through a stringent vetting process.

Each IRS operating division (OD) and function, including the Taxpayer Advocate Service (TAS), reviews proposed written guidance from other functions to ensure conformance with established policies, statutes and regulations, and identify any conflicts with current procedures and systems. TAS employees review IRS proposed guidance not only for technical accuracy, but also to identify policies or procedures that may harm taxpayers, and offer solutions and alternatives to alleviate these burdens. While OD review of proposed guidance is an internal process, legal rule-making is subject to public scrutiny.⁴

In the case of regulations, the IRS is required to give public notice and an opportunity for review and comment under § 553 of the Administrative Procedure Act (APA).⁵ The IRS publishes all substantive and procedural rulings of importance or general interest to promote a correct and uniform application of the tax laws by IRS employees. The IRS uses the Internal Revenue Bulletin (IRB) to circulate guidance and solicit comments and feedback from the community at-large before regulations and procedures are finalized. Further, statements of internal practices and procedures affecting rights and duties of taxpayers are published in the IRB.⁶ However, the IRS is not required to circulate IMDs for public comment.⁷

The IRS also issues and publishes guidance (such as IRMs, legal opinions, and policy guidance) because it is required to be transparent under the law.⁸ FOIA requires the IRS to state separately, and publish in the Federal Register, guidance for the public concerning its organization structure, the method and process for obtaining information, general procedures for its functions, forms and instructions, substantive rules of general applicability, and general policies and interpretations.⁹ Further, the IRS makes available for public inspection and copying any statements of policy and interpretations adopted by the IRS, but not published in the Federal Register, as well as administrative staff manuals and instructions to staff that affect the public.¹⁰ E-FOIA requires government agencies to provide these

⁴ The Secretary of the Treasury, or his delegate, is authorized to prescribe all needful rules and regulations for the enforcement of the tax code. IRC §§ 7701(a)(11)(B) & 7805(a).

⁵ 5 U.S.C.A. § 553. Regulations and Treasury decisions are prepared in the Office of Chief Counsel. After approval by the Commissioner, they are forwarded to the Secretary for further consideration and final approval. Treas. Reg. § 601.601(a)(1). Where required by 5 U.S.C. § 553 and in such other instances as may be desirable, the Commissioner publishes general notice of proposed rules in the *Federal Register* (FR). Treas. Reg. § 601.601(a)(2). Interested persons may submit any data, views, or arguments in response to the notice of proposed rule making, and interested persons may petition for the issuance, amendment, or repeal of a rule. Treas. Reg. § 601.601(b) & (c). Once the comment period expires and the regulation is finally approved by the Commissioner, all internal revenue regulations and Treasury decisions are published in the FR and Internal Revenue Bulletin (IRB). Treas. Reg. § 601.601(d)(1).

⁶ Treas. Reg. § 601.601(d)(1).

⁷ The review and comment procedures generally do not apply to notices, revenue rulings, or revenue procedures that are published in the IRB. Treas. Reg. § 601.601(d)(2)(i). However, the IRS may grant a conference for public comment on these documents where the IRS determines it is justified by special circumstances. Treas. Reg. § 601.601(d)(2)(v)(f).

⁸ See generally 5 U.S.C.A. § 522. See also National Taxpayer Advocate 2006 Annual Report to Congress 10-29 (Most Serious Problem: *Transparency of the IRS*).

⁹ 5 U.S.C.A. § 552(a)(1). Treas. Reg. § 601.702(a). Any matter which imposes an obligation on a taxpayer and which is not published or incorporated by reference in the Federal Register shall not adversely change or affect a taxpayer's rights. Treas. Reg. § 601.702(a)(2)(ii).

¹⁰ 5 U.S.C.A. § 552(a)(2).

records by computer or electronic means and electronically redact any personally identifiable information in such records.¹¹

FOIA exempts certain items from disclosure, including internal personnel rules and practices, inter-agency or intra-agency memoranda, letters regarding the deliberative process, and other private matters.¹² The IRS specifically identifies items exempt under FOIA as Official Use Only (OUO).¹³ For example, the IRS designates tolerance levels (*i.e.*, a level of noncompliance that the IRS will not pursue in exam or collection) used in enforcement functions as OUO.

Moreover, FOIA creates a “strong presumption in favor of disclosure.”¹⁴ Thus, the President has suggested that all agencies, including the IRS, “. . . harness new technologies to put information about their operations and decisions online and readily available to the public,” and solicit public commentary to identify information most useful to the public.¹⁵

Policies embedded in IRS systems do not go through the same stringent vetting and review process as written instructions or policies.

Instructions embedded in an electronic system do not go through the formal clearance process and are not made public. As such, there is no reasonable assurance the systems created to implement specific policy and guidance operate as intended. Nor will TAS or other affected IRS functions necessarily have the opportunity to identify systemic problems that may burden or harm taxpayers through programming errors, or flaws in the underlying assumptions that ignore statutory requirements or eliminate discretion.

For example, the Reasonable Cause Assistant (RCA) program uses taxpayer information to assist IRS employees in making penalty abatement decisions.¹⁶ RCA generally permits a first-time abatement (FTA) of failure to file, failure to pay, and failure to deposit penalties if the taxpayer has otherwise been compliant with filing and payment obligations for the past three years.¹⁷ However, when processing abatement requests for spouses who file jointly, RCA is programmed to limit the three-year compliance check to the taxpayer identification

¹¹ In enacting E-FOIA, Congress found that FOIA has been responsible for uncovering fraud, waste, abuse, and wrongdoings in government; has led to the identification of unsafe consumer products, harmful drugs, and serious health hazards; government agencies increasingly use computers to conduct agency business and to store records; and that government agencies should use new technology to enhance public access to agency records and information. H.R. Rep. No. 104-795, at Sec. 2(a) (1996).

¹² 5 U.S.C.A. § 552(b). FOIA also exempts matters concerning the national defense or foreign policy, items specifically excluded by statute, trade secrets or other privileged and confidential information from disclosure.

¹³ IRM 11.3.12.2 (Oct. 30, 2009).

¹⁴ Open Government Act of 2007, Pub. L. No. 110-175, § 2(3), 121 Stat. 2524 (2007) (*quoting U.S. Dep’t of State v. Ray*, 502 U.S. 164, 173 (1991)).

¹⁵ President Barack Obama, *Memorandum for the Heads of Executive Departments and Agencies*, 74 FR 4683 (Jan. 21, 2009). In response, the Attorney General issued guidelines requiring defense of a denial of a FOIA request only if the agency reasonably foresees that disclosure would harm an interest protected by a statutory exemption, or disclosure would be prohibited by law. Office of the Attorney General, *Memorandum for the Heads of Executive Departments and Agencies* (Mar. 19, 2009).

¹⁶ The Reasonable Cause Assistant is a decision tree program that uses information from taxpayers and the IRS Master File to help employees review and process penalty abatement requests.

¹⁷ IRM 20.1.1.3.6.1 (Dec. 11, 2009).

number (TIN) of the primary spouse. Thus, the IRS fails to check the compliance history of the secondary spouse before making the FTA determination, and automatically denies relief to potentially eligible taxpayers. If the IRS had implemented this policy through IRM guidance to employees, it would undergo extensive internal review and comment. However, because the IRS implemented the policy through programming, the National Taxpayer Advocate and other IRS employees were unaware of it until actual taxpayers were harmed by the programmed results from the RCA.

The IRS does not use a continuous feedback mechanism on programs that make or guide substantive decisions.¹⁸ This type of mechanism would allow the IRS to evaluate systems and update embedded assumptions as needed (*e.g., Were the assumptions correct? Based on experience, are there exceptions that require programming changes? Are there programming loops that create problems instead of resolutions?*). This sort of continual feedback and analysis can help the IRS analyze results for exceptions, anomalies, and inaccuracies.

Policy not programmed can create disparity in tax administration.

Vetting embedded guidance before programming also provides an opportunity to identify situations where policy *should* be programmed into an automated system. For example, a taxpayer who has been a non-filer for the past 20 years may decide to become compliant. Upon contact with the IRS, he or she should be informed of the IRS policy to generally limit its look-back period for unfiled returns to six years when a non-filer comes to the IRS voluntarily, before receiving contact.¹⁹ This policy is not programmed into any IRS automated decision trees.

The omission of this guidance from automated systems has the potential to create great inequity. A taxpayer not informed of this policy statement *may* file, and the IRS *will* process, 20 years of returns. Another taxpayer, informed of this policy by an IRS employee and thereby prompted to do so, may only file six years of returns. This inconsistency creates a windfall for one taxpayer with no rational basis for the disparate treatment of the other taxpayer.

Overreliance on programmed policy can be problematic.

Sometimes, automation creates a false sense of security. Embedded assumptions in programming that are not reviewed and continually analyzed can create a false sense of assurance. For example, the IRS maintains the Centralized Authorization File Program (CAF), which uses signed power of attorney (POA) forms to track taxpayers' authorizations for certified public accountants (CPAs), attorneys, and enrolled agents (EAs) to perform specific

¹⁸ The IRS uses two formal feedback methods – Servicewide Electronic Research Program (SERP) Feedback and an RCA e-mail address for questions to RCA experts. While these methods apprise the IRS of systemic issues, they do not systemically assess embedded assumptions.

¹⁹ Taxpayers failing to file tax returns due will be asked to prepare and file all such returns. All delinquent returns will be accepted. Normally, application of these criteria will result in enforcement of delinquency procedures for not more than six years. IRM 1.2.14.1.18, *Policy Statement 5-133* (Aug. 4, 2006).

acts on their behalf.²⁰ CAF examiners input a POA indicator on the IRS master file without verifying the credentials or practice status of representatives identified on the POA form.²¹ Various online tools and inventory management systems remind employees to check the IRS master file, not the underlying credentials, to determine authority to practice before the IRS.²²

Practice before the IRS encompasses all matters connected with a presentation to IRS officers or employees relating to a taxpayer's rights, privileges, or liabilities under the tax code and regulations.²³ Practitioners before the IRS are required to represent taxpayers diligently, promptly, and without any conflicts of interest.²⁴ However, representatives who are not authorized to practice before the IRS may harm taxpayers (by misrepresenting rights and obligations, or by taking fees for delayed or careless representation) without reprisal from the Office of Professional Responsibility (OPR), which has the authority to only discipline those who are authorized to practice before the IRS.²⁵ TAS analysis of representatives claiming EA status in the CAF in FY 2009 revealed 30 percent of representatives listed as EAs were not recognized as such by the OPR.²⁶ If the IRS verified practitioners' credentials, it could contact a taxpayer directly and explain that the representative is unauthorized to practice before the IRS, allowing the taxpayer to reconsider the representation. The IRS could improve its protection of taxpayers by cross-checking with OPR databases through automation, thereby creating a continuous feedback loop.

Automation must leave room for employee judgment and review.

For every policy and procedure, there generally are exceptions based on the taxpayer's circumstances. Automation is not a substitute for an employee's independent judgment and discretion. For example, the IRS automatically sends notices of intent to levy or files Notices of Federal Tax Lien (NFTLs) before the cases have been forwarded to the

²⁰ See generally IRM 21.3.7 (Aug. 2009). Most taxpayers authorize third parties to practice before the IRS on their behalf by submitting Form 2848, *Power of Attorney and Declaration of Representative* (June 2008). If a representative is not authorized to practice before the IRS, he or she may only represent the taxpayer as a designee for a year in which he or she prepared the taxpayer's tax return. IRM 4.11.55.1.2.2(1) (Apr. 20, 2010); IRM 5.1.23.2.1.4.1(3) (Oct. 12, 2010).

²¹ IRM 21.3.7.1.4 (Oct. 1, 2008). CAF examiners will record a power of attorney form into the file as long as the taxpayer's identity, the representative's identity, the type of tax return, the tax periods, the taxpayer's signature and date, and the representatives designation, jurisdiction, signature, and date are provided. IRM 21.3.7.5.2 (Aug. 25, 2009).

²² See, e.g., IRM 5.19.5.3.6(2) (Dec. 1, 2007). In the Automated Collection System (ACS), a CAF indicator displays on the employee's computer screen if there is a representative authorized to practice before the IRS.

²³ Treasury Department Circular No. 230 (Circular 230) § 10.2(a)(4) (Apr. 2008).

²⁴ Circular 230 §§ 10.22, 10.23 & 10.29 (Apr. 2008).

²⁵ Circular 230 § 10.50 (Apr. 2008).

²⁶ TAS Research, for FY 2009, of 4,959 enrolled agent (EA) powers of attorney entered in the CAF, 1,496 could not be matched against the Office of Professional Responsibility (OPR) database of valid EAs. OPR provides search features on its website for enrolled agents (<http://nhq.no.irs.gov/opr/>). IRM 4.11.55.1.2.2(3) (Apr. 20, 2010). In addition, the IRS web site provides contacts for searching the status of an Enrolled Agent via e-mail or telephone. See <http://www.irs.gov/taxpros/agents/article/0,,id=123388,00.html> (last visited Nov. 22, 2010).

Automated Collection System (ACS) or the Collection Field function (Cff).²⁷ TAS reviewed FY 2009 cases and found the IRS issued proposed levy or lien filing notices on 11 percent of taxpayers' tax year modules before their cases were ever assigned to Collection.²⁸ The IRS takes automated collection action without using automation to determine if the taxpayer is low income, classified as currently not collectible (CNC) with respect to another tax matter, or working with another IRS function, including TAS.

New systems present an opportunity for artificial intelligence.

Artificial intelligence, and specifically “machine learning” as employed by the IRS Risk-Based Collection Model, creates rules specifying treatment for certain cases based on the data input, yet only works when the IRS has experience and history with the process.²⁹ For the system to succeed, the IRS must have a valid data set of positive and negative learning experiences that are continually updated on a periodic schedule to create an experiential database. Similarly, rule based applications, such as RCA, need a continually updated database of positive and negative experiences to work effectively.

The IRS is currently designing and implementing the Information Reporting and Document Matching (IRDM) program, in response to legislation that allows the IRS to collect merchant card data, cost basis data on security sales, and information on government payments. Much of this third-party data will be consolidated into an existing system and matched against filing data to detect underreporting or non-filing. The IRS will use the results of these processes to develop an inventory of potential cases.³⁰

While the IRDM program plans to collect data to monitor and improve the effectiveness of the case selection process, the IRS can also improve efficiency and effectiveness by employing the principles of artificial intelligence.³¹ Without an effective feedback mechanism based on positive and negative learning experiences, IRDM will create burden for taxpayers and IRS alike.

²⁷ See Most Serious Problem: *The IRS's Failure to Provide Timely and Adequate Collection Due Process Hearings May Deprive Taxpayers of an Opportunity to Have Their Cases Fully Considered, infra*; National Taxpayer Advocate 2009 Annual Report to Congress 17-40 (Most Serious Problem: *One-Size-Fits-All Lien Filing Policies Circumvent the Spirit of the Law, Fail to Promote Future Tax Compliance, and Unnecessarily Harm Taxpayers*); Letter 1058, *Final Notice, Notice of Intent to Levy and Notice of Your Right to a Hearing* (Oct. 2008); Letter 3172, *Notice of Federal Tax Lien Filing and Your Rights to a Hearing Under IRC 6320* (Mar. 2009).

²⁸ IRS, CDW, Integrated Data Retrieval System (IDRS), analysis of IDRS transaction code (TC) 971, action codes (ACs) 69 (for levy Collection Due Process (CDP) notices) and 252 (for lien CDP notices) for status 22, ACS, and status 26, Cff, cases for FY 2009. Further, 24 percent of the modules were not in Collection before issuance of CDP lien notices, and almost ten percent of the modules were not in Collection before the issuance of a CDP levy notice. Of those modules not in Collection, 28 percent of modules were in the queue on or before a CDP levy notice was issued and 47 percent of modules were in the queue on or before a CDP lien notice was issued.

²⁹ IRS, 2005 IRS Research Conference, *Risk-Based Collection Model Development and Testing* 142-143 (June 7, 2005). The IRS team used data mining and machine learning techniques to identify patterns in historical collections data to reveal predictors of collections outcomes.

³⁰ See <http://mits.web.irs.gov/es/default.htm> (last visited June 26, 2010).

³¹ The term “artificial intelligence” was coined by a gathering of Dartmouth computer scientists in 1956 and means the intelligence of machines and the branch of computer science aimed at creating the underlying supporting systems. Jonathan Skillings, *Getting Machines to Think Like Us*, CNET News (July 3, 2006).

CONCLUSION

Policy embedded in IRS systems is just as important as written policy and should be subject to similar vetting. IRS decision systems should maximize artificial intelligence by including a continuous feedback cycle mechanism. The IRS must document any new system and changes made through artificial intelligence and disclose non-OUO changes to provide transparency to taxpayers.

The National Taxpayer Advocate offers these preliminary recommendations:

1. Expand the SPDER clearance process to include a review of IRS systems that include embedded policy decision tools and programs;
2. Require an artificial intelligence support system of continuous feedback in new IRS systems to continually assess and improve programming;
3. Plan and allocate funding for information technology hardware, software, and support of artificial intelligence and continuous feedback in new programs, such as the IRDM program; and
4. Provide for the public disclosure of non-OUO embedded policy decision tools and programs needed for transparency.

IRS COMMENTS

Overview

The IRS appreciates the National Taxpayer Advocate's recognition that automation is needed to administer the tax laws efficiently and consistently. The IRS agrees that tax policies and procedures require transparency. The IRS also agrees that policy guidance implemented in automated systems should accurately reflect that guidance and that internal processes, such as feedback loops, should be present to ensure automated tools and systems are aligned with policy guidance. The IRS disagrees with the statement that policy guidance programmed into automated systems is not transparent or adequately reviewed. The IRS also disagrees with the statement that programmed requirements should be published for external review.

The IRS defines policy decisions through the IRM, internal directives, published guidance and other means. There is a well-defined process for review and clearance including external publication. These policies and guidance are published or available externally ensuring transparency. These same policies and procedures may be translated into business requirements for implementation into IRS automated systems. The IRS uses industry standard processes for systems development to ensure systems deliver accurate, quality, cost effective, and timely solutions to meet the defined business requirements. Business customers review and concur that requirements are being met throughout the design, development, testing, deployment, and update stages of systems development.

Policy Defines Business Requirements for Automated Systems.

The National Taxpayer Advocate reports that policies embedded in IRS system do not go through the same stringent vetting and review process as written instructions or policies. Policies are established before programming changes are made. These policies are subject to vetting and review before the act of programming is performed. Programming changes are made to effectuate policies that have been previously determined. The programming changes are defined and governed by process disciplines that allow for confirmation of business requirements.

The IRS has a mandatory procedure in place for effectuating policy decisions into program changes.³² Each business organization within the IRS has policy analysts that author the IRM where the policies, procedures, and guidelines are written. The IRM is the central source for standard operating procedures and directives within the IRS, and it is the official source for IRS policies, directives, guidelines, and procedures. These analysts also “own” the policies and are responsible for reviewing them throughout the year to determine impacts for all required changes. They also ensure the IRM content is properly coordinated and cleared through all impacted organizations prior to publishing. Impacted organizations, in turn, are responsible for accurately and timely effecting those policies and guidance into business processes and automated systems.

Once a policy is defined or updated and it is determined that automated systems will be used to implement the policy, business requirements are developed. Requirements are provided by the business to the information technology organization (MITS) through a work request or change request process.³³ The computer programming to deliver these requirements is guided by stringent and structured processes. The processes are defined by the Enterprise Life Cycle (ELC)³⁴ for new applications or Change Management (CM) for updates to current systems. Each process has multiple steps or milestones which allow the business owner to review and confirm that the automated systems will accurately deliver the requested requirements. These steps occur during the design, development, testing, and deployment stages. In addition, the IRS employs a governance structure of business and technology partners to oversee business applications throughout the lifecycle to identify and mitigate any potential impacts or risks to users, customers and stakeholders.

Keeping IRS Systems Aligned with Policies

Given the large volume of programming changes made every year to hundreds of IRS business applications, it is possible that the programmed business requirements result in

³² Legislative, judicial and other changes drive IRS policies and procedures. SPDER is the owner of the IMD process, which supports the IRS goal of ensuring the IRM is the official source of all procedures, policy, directives, delegations, and guidelines. SPDER is responsible for setting Service policy for and designing, implementing, and monitoring a strategic servicewide approach to managing the internal directives process.

³³ A Unified Work Request (UWR) provides a formal, documented notification to MITS that a service or support is needed. The UWR provides the documentation and describes the type of work needed. It is vetted with all stakeholders and approved by management to ensure the needs are complete and articulated to achieve established policy.

³⁴ <http://elc.nc.no.irs.gov/>.

unintended or inconsistent results. When the IRS becomes aware of such results, steps are taken by the business and MITS to correct the situation. The National Taxpayer Advocate cites the Reasonable Cause Assistant as the only example of an embedded programmed policy. As discussed in another portion of the National Taxpayer Advocate's report, the IRS is aware of the issues related to the RCA and is taking steps to address this issue.

The IRS recognizes the importance of feedback to continuously improve and align our automated systems and tools. The IRS uses industry standard processes to receive and solicit feedback. These include an Enterprise Service Desk to report operational incidents and problems for monitoring and resolution. Change requests and work requests are used to capture, describe, evaluate, and prioritize customer requests for changes or updates to business applications. The application development process provides multiple opportunities for feedback during design, development and testing. Business unit and enterprise IT governance bodies also provide venues for review and change to systems requirements. While the IRS recognizes that the processes described require human initiation and intervention and are not generated systemically from the business applications themselves, these procedures have been effective at identifying issues and opportunities for improving systems.

Minor Variations in Programming Do Not Suggest Fundamental Differences in Policy.

The National Taxpayer Advocate claims that policy not programmed can create disparity in tax administration and cites the IRS policy of limiting the look-back period for unfiled returns. The comparison made in the report is flawed. The IRS policy to limit its look-back period to six years is not inconsistent with systems allowing the acceptance of tax returns for periods prior to the general-look back period. The law requires, and IRS systems must accept, unfiled returns for all prior years. The presence of a policy to limit the look-back period does not affect the necessity for IRS systems to handle acceptance of returns for years prior to the look-back period.

The National Taxpayer Advocate's report claims that automation creates a false sense of security and uses the Centralized Authorization File program as an example. The IRS acknowledges that improvements could be made to verify information of representatives; however, it is incorrect that the current process creates a false sense of security. Employees are aware of the current limitations in systems for cross checking in all cases.³⁵

Public Disclosure & FOIA

The National Taxpayer Advocate states that the IRS may not be fulfilling its duties under the FOIA and E-FOIA. The IRS disagrees. The IRS has consulted with the Office of Chief Counsel and confirmed that current practices are fully compliant with these legal requirements.

³⁵ Note that in connection with the IRS's Return Preparer Initiative, it is expected that the process will be enhanced so that there is a more integrated process to validate preparer credentials.

Systems may include internal enforcement policies (such as certain tolerance levels, etc.), but these policies are of a type that should not be available to the public given their sensitive nature. These policies are generally included in the IRM, but are classified as OOU and not disclosable to the public.

Using Advanced Technology and Tools to Improve Business Requirements

The IRS agrees with the National Taxpayer Advocate that new technology creates opportunities to improve how our automated tools and business applications are designed, used, and updated. The IRS deploys numerous tools that allow for analysis, development, testing, feedback, and updating of our business logic programmed into the automated systems. Current software options include decision analytics, data and predictive modeling, business rules engines, document repositories, integrated data models, management information reporting, and federated data queries. For example, the examination function uses tools for inventory selection: 1) machine learning which applies algorithms on a data set which then automatically recognizes complex patterns and makes intelligent decisions based on the data;³⁶ and 2) use of expert rules and models to first identify the probable non-compliant issues on an individual income tax return and then prioritizes returns with the most audit potential.

The value of acquiring new software, adopting additional program languages, and building new testing and evaluation methods needs to be evaluated in the context of the IRS's unique business and systems environment - particularly with respect to the effects and time constraints of annual changes to tax legislation and the interpretation of tax law. In the current fiscal environment, pursuit of the proposed process must be predicated on a substantive understanding of the costs and benefits and a reasonable sense of the life expectancy of any policies, practices, or procedures that will be implemented to support the process.

The IRDM program provides a current business example of how the IRS's suite of tools can and will be used to deliver the business objectives, align with the prescribed policies and guidance, and implement feedback mechanisms to ensure that alignment. The IRS concurs it is important to create an effective feedback mechanism during IRDM development to avoid creating burden for taxpayers and IRS alike.³⁷

³⁶ The IRS is currently conducting an Exam inventory test entitled "Compliance Data Environment, Release 3 (CDER3)/Machine Learning Test." This test involves using a combination of two artificial intelligence models for inventory selection.

³⁷ The Business Underreporter (BUR) portion of IRDM will have a robust Case Inventory Selection and Analytics (CISA) component enabling us to accurately track case resolutions. This will also contain a feedback loop, allowing for refinement of case selection in subsequent cycles, years, and tax periods. A Customer Satisfaction Survey similar to the one used in Individual Master File Automated Underreporter will be developed and utilized in a similar manner to aid in determining possible areas for improvement. Along with the survey, all relevant feedback from practitioners, preparers, and small business taxpayers via mail, fax, or phone, will be documented and considered.

Preliminary Recommendations

The National Taxpayer Advocate recommends that the IRS expand the SPDER clearance process to include a review of IRS systems that include embedded policy decision tools and programs. The IRS does not believe that the SPDER clearance process should be expanded to review programming changes. As previously discussed, IRS systems should not define or create new policy decisions, only reflect and implement established policy. These policy decisions should be subject to review by management before the system change is requested. The IT systems development life cycle provides the process and mechanism to review and confirm the policy has been accurately programmed.

The National Taxpayer Advocate also recommends that the IRS require an artificial intelligence support system of continuous feedback in new IRS systems to continually assess and improve programming. An IRS decision to require the use of artificial intelligence technology would be based on an approved business case and associated resource investments. As noted above, the IRS already supports the implementation and use of multiple feedback mechanisms within automated systems and across business processes which are designed to ensure requirements and being met and to identify continuous improvement opportunities.

The National Taxpayer Advocate also recommends that the IRS plan and allocate funding for information technology hardware, software, and support of artificial intelligence and continuous feedback in new programs, such as the IRDM program. As with the prior recommendation, an IRS decision to require the use of this technology would be based on an approved business case and associated resource investments. The IRS does and will continue to leverage available technologies during design, build, test, and deployment of new systems such as IRDM.

Finally, the National Taxpayer Advocate recommends that the IRS provide for the public disclosure of non-OUO embedded policy decision tools and programs needed for transparency. The IRS agrees that tax policies and procedures should be transparent. However, as previously discussed, necessary transparency should, and already does, take place distinct from the programming of systems.

Taxpayer Advocate Service Comments

The National Taxpayer Advocate is pleased that the IRS “agrees that tax policies and procedures require transparency.” However, the IRS response does not support its own position. For example, the IRS states that “[p]olicies are established before programming changes are made. These policies are subject to vetting and review before the act of programming is performed. Programming changes are made to effectuate policies that have been previously determined.” Yet TAS has provided several examples (of which there are many more) where policies are programmed into automated decision trees or probes-and-response that were not subject to the level of cross-functional review achieved in the IRM clearance process.

As the IRS itself states, “automation is needed to administer the tax laws efficiently and consistently.” We also believe automation must help administer the tax laws *accurately* and *effectively*. When the IRS fails to comprehensively vet the underlying assumptions and policies of programming that impacts taxpayers’ lives – *i.e.*, any matter which imposes an obligation on a taxpayer – and then publish those policies (with appropriate redaction for OOU matters), it impairs the effectiveness of tax administration and increases the risk of inaccurate results. The Enterprise Life Cycle and Change Management requests generated by the business owner are not substitutes for a substantive cross-functional clearance process and public transparency. In our opinion, this failure raises significant concerns about the IRS’s compliance with FOIA and E-FOIA. The potential for harm grows as the IRS increasingly automates the decision-making process pertaining to substantive tax matters.

In its response, the IRS cites a Chief Counsel opinion as its basis for its statement that it is in compliance with E-FOIA. However, the IRS has not produced a copy of this opinion.³⁸ The Office of Chief Counsel is generally required to disclose certain Chief Counsel advice (CCA),³⁹ and we find it ironic that the IRS would not disclose legal advice from Chief Counsel finding that the IRS was compliant with E-FOIA. Moreover, even SPDER has expressed concerns that it may not be in compliance with E-FOIA in its handling of the Servicewide Electronic Research Program (SERP) interim procedural updates (IPUs).⁴⁰

The National Taxpayer Advocate is disappointed that the IRS would not disclose systems information to IRS employees or the public because the information may include “internal enforcement policies.” The IRS routinely discloses the IRM, including OOU material, to IRS and TAS personnel electronically, but removes (redacts) OOU information from the manual for public consumption. The IRS should disclose systems information the same way.

³⁸ TAS sent an e-mail on December 20, 2010, requesting a copy of the opinion. In response to our request, the IRS confirmed that this conclusion has not been reduced to writing. Thus, we cannot evaluate the basis on which Counsel so concluded.

³⁹ IRC § 6110(i)(1) generally requires disclosure of certain Chief Counsel advice (CCA), which means any written advice or instruction, under whatever name or designation, prepared by any national office component of the Office of Chief Counsel.

⁴⁰ See SPDER, *FY 2008 Annual Report of the Internal Management Documents (IMD) Program 11* (Feb. 6, 2009).

The National Taxpayer Advocate is pleased that the IRS uses “industry standard processes for systems development.” However, the IRS has routinely disclosed material weaknesses in its internal controls for the management of unpaid tax assessments that industry standard processes have not corrected.⁴¹ While the use of outdated systems may be a large part of the problem, the IRS should consider review of systems processes by all affected internal stakeholders, such as TAS, to ensure that programs achieve their intended results and that all laws and regulations are followed.

Tax administration benefits from transparency. Analysts who “own” and review policies are generally not relying on the systems used to carry out the guidance. For example, while analysts in the Centralized Authorization File program office may be aware of the current limitations in systems for cross checking a valid power of attorney, the Customer Service Representative (CSR) relying on this data is not. The lack of transparency creates a false security, and the CSR’s reliance on the system may cause an unauthorized disclosure.

Systems not only include return processing and penalty determination tools, but online account guidance. Consider the IRS policy of limiting the look-back period to six years to determine full compliance. The concern is not whether the IRS can process prior year returns: it can and it should. The concern is whether all taxpayers facing the challenge of coming into compliance are properly informed of this policy and treated equally. They are not. The disclosure of non-OUO embedded policy tools, in particular to practitioners, helps taxpayers and the IRS achieve the best and most equitable resolution of an account.

The National Taxpayer Advocate realizes that the IRS has been effective at identifying issues and opportunities for improving systems. She challenges the IRS to continue these improvements, while recognizing the agency’s current budget constraints and considerations. Finally, she urges the IRS to increase the use of artificial intelligence to promote an environment of continuous feedback and improvement not dependent on human initiation.

⁴¹ IRS Commissioner, *Statement of Qualified Assurance of Achievement of Management Control Objectives* for FYs 2009 and 2010 (Nov. 5, 2009 and Nov. 5, 2010). Government Accountability Office (GAO), GAO-09-11913, *Financial Audit: IRS’s Fiscal Years 2008 and 2007 Financial Statements* 13 (Nov. 2008). The Office of Management and Budget (OMB) Circular No. A-123 defines a material weakness as a reportable condition that the agency head determines to be significant enough to report outside of the agency. GAO, GAO-09-232G, *Federal Information System Controls Audit Manual (FISCAM)* 130 (Feb. 2009). OMB Circular No. A-123 and the Federal Managers’ Financial Integrity Act of 1982 (31 U.S.C. § 3512) provide, among other things, that federal employees must ensure that programs operate and resources must be used consistent with agency missions, in compliance with laws and regulations, and with minimal potential for waste, fraud, and mismanagement.

Recommendations

In consideration of the IRS's response, the National Taxpayer Advocate renews the following recommendations:

1. Expand the SPDER clearance process and change standard practices to include a review of IRS systems that include embedded policy decision tools and programs;
2. Provide for the public disclosure of non-OUO embedded policy decision tools and programs needed for transparency; and
3. Consider and weigh the benefits of adding an artificial intelligence support system of continuous feedback in new IRS systems to continually assess and improve programming.